

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**


Attorney Docket Number	6682-77985-03
Application Number	10/509,570
Filing Date	September 29, 2004
First Named Inventor	Trinkle et al.
Art Unit	1609
Examiner Name	Layla D. Bland

U.S. PATENT DOCUMENTS

Copies of U.S. Patent documents do not need to be provided, unless requested by the Patent and Trademark Office. For patents, provide the patent number and the issue date. For published U.S. applications, provide the publication number and the publication date. For unpublished pending patent applications, provide the application number and the filing date.

Examiner's Initials*	Cite No. (optional)	Number	Publication Date	Name of Applicant or Patentee
/L.B./		1988000198677	12/12/1989	Hadwiger
		2,040,879	5/19/1936	Rigby
		3,232,836	2/1/1966	Carlozzi et al.
		3,632,754	1/4/1972	Balassa
		3,903,268	9/2/1975	Balassa
		3,911,116	10/7/1975	Balassa
		3,914,413	10/21/1975	Balassa
		4,056,432	11/1/1977	Slagel et al.
		4,282,351	8/4/1981	Muzzarelli
		4,806,474	2/21/1989	Hershberger
		4,886,541	12/12/1989	Hadwiger
		4,948,881	8/14/1990	Naggi et al.
		4,970,150	11/13/1990	Yaku, et al.
		5,219,749	6/15/1993	Bouriotis et al.
		5,232,842	8/3/1993	Park et al.
↓		5,262,310	11/16/1993	Karube et al.
/L.B./		5,730,876	3/24/1998	You et al.

EXAMINER
SIGNATURE: /Layla Bland/

DATE
CONSIDERED: 09/18/2007

* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Attorney Docket Number	6682-77985-03
Application Number	10/509,570
Filing Date	September 29, 2004
First Named Inventor	Trinkle et al.
Art Unit	1609
Examiner Name	Layla D. Bland

U.S. PATENT DOCUMENTS

Copies of U.S. Patent documents do not need to be provided, unless requested by the Patent and Trademark Office. For patents, provide the patent number and the issue date. For published U.S. applications, provide the publication number and the publication date. For unpublished pending patent applications, provide the application number and the filing date.

Examiner's Initials*	Cite No. (optional)	Number	Publication Date	Name of Applicant or Patentee
/L.B./		5,905,035	5/18/1999	Okada et al.
/L.B./		5,985,644	11/16/1999	Roseman et al.
/L.B./		5,998,173	12/7/1999	Haynes et al.
/L.B./		6,117,851	9/12/2000	Sherman et al.
/L.B./		6,333,399	12/25/2001	Teslenko et al.

FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee
/L.B./		EP	0885954	12/23/1998	
/L.B./		GB	458,839	12/21/1936	
/L.B./		JP	2149335 A2	6/7/1990	
/L.B./		JP	2180903 A2	7/13/1990	
/L.B./		JP	2200196 A2	8/8/1990	
/L.B./		JP	2229832 A2	9/12/1990	
/L.B./		JP	2258740 A2	10/19/1990	
/L.B./		JP	5068580 A2	10/23/1993	
/L.B./		JP	7330808 A2	12/19/1995	
/L.B./		JP	08-041106 (w/English translation)	02/13/1996	

EXAMINER
SIGNATURE:

/Layla Bland/

DATE

CONSIDERED:

09/18/2007

* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket Number	6682-77985-03
	Application Number	10/509,570
	Filing Date	September 29, 2004
	First Named Inventor	Trinkle et al.
	Art Unit	1609
	Examiner Name	Layla D. Bland

FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee
/L.B./		JP	10297913 A2	11/10/1998	
/L.B./		JP	55012109 A2 (English Abstract)	1/28/1980	
/L.B./		JP	62070401 A2	3/31/1987	
/L.B./		JP	63097633 A2	4/28/1988	
/L.B./		JP	63225602 A2	9/20/1988	
/L.B./		WIPO	WO 98/42755	10/01/1998	
/L.B./		WIPO	WO 00/04182	1/27/2000	

OTHER DOCUMENTS

Examiner's Initials*	Cite No. (optional)	
/L.B./		AIBA, S., "Preparation of N-acetylchitooligosaccharides from lysozymic hydrolysates of partially N-acetylated chitosans" <u>Carbohydrate Research</u> , Vol. 261, pp. 297-306 (1994)
/L.B./		ALONSO, I., et al., "Determination of the Degree of Acetylation of Chitin and Chitosan by Thermal Analysis," <u>Journal of Thermal Analysis</u> , Vol. 28, pp. 189-193 (1983)
/L.B./		BARTNICKI-GARCIA S., "Cell Wall Chemistry, Morphogenesis, and Taxonomy of Fungi," <u>Chemistry of Fungal Cell Wall</u> , pp. 87-108 (1968)
/L.B./		BENJAKUL, S. et al., "Improvement of Deacetylation of Chitin from Black Tiger Shrimp (<i>Penaeus monodon</i>) Carapace and Shell," <u>ASEAN Food Journal</u> , Vol. 9, No. 4, pp. 136-140 (1994)
/L.B./		BERI, R. et al., "Characterization of Chitosans via Coupled Size-Exclusion Chromatography and Multiple-Angle Laser Light-Scattering Technique," <u>Carbohydrate Research</u> , Vol. 238, pp. 11-26 (1993)
/L.B./		BIERMANN, C., "Hydrolysis and Other Cleavage of Glycosidic Linkages," Chapter 3, pp. 29-41 (date unknown)
/L.B./		CARLSON, T. et al., "Chitin/Chitosan Extraction from <i>A. Niger</i> Mycelium," <u>Cargill Central Research</u> , 16 pages (August 1997)

EXAMINER SIGNATURE:	/Layla Bland/	DATE CONSIDERED:	09/18/2007
* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket Number	6682-77985-03
	Application Number	10/509,570
	Filing Date	September 29, 2004
	First Named Inventor	Trinkle et al.
	Art Unit	1609
	Examiner Name	Layla D. Bland

Examiner's Initials*	Cite No. (optional)	OTHER DOCUMENTS
/L.B./	-	"Chitin/Chitosan Specifications," <u>Biopolymer Engineering, Inc.</u> , http://www.biopolymer.com/spec.htm , 1 page (date printed March 4, 1999)
/L.B./		DAVIES, D., et al., "Determination of the Degree of Acetylation of Chitin and Chitosan," <u>Methods in Enzymology</u> , Vol 161, Part B, pp. 442-446 (1988)
/L.B./		DOMSZY, J. et al., "Evaluation of Infrared Spectroscopic Techniques for Analysing Chitosan," <u>Makromol. Chem.</u> , Vol. 186, pp. 1671-1677 (1985)
/L.B./		FARKAS, V., et al., "Fungal Cell Walls: Their Structure, Biosynthesis and Biotechnological Aspects," <u>Acta Biotechnol.</u> , Vol. 10, No. 3, pp. 225-238 (1990)
/L.B./		FLEET, G., et al., "17 Fungal Glucans - Structure and Metabolism," <u>Encyclopedia of Plant Physiology</u> , Vol. 13B, New Series, pp. 416-440 (1981)
/L.B./		GASSNER, G., et al., "Teichuronic Acid Reducing Terminal <i>N</i> -Acetylglucosamine Residue Linked by Phosphodiester to Peptidoglycan of <i>Micrococcus luteus</i> ," <u>J. Bacteriol.</u> , Vol. 172, No. 5, pp. 2273-2279 (May 1990)
/L.B./		GOBIN, P., et al., "Structural Chemistry of Fungal Polysaccharides," pp. 367-417 (1968)
/L.B./		JOHNSTON, I., "The Composition of the Cell Wall of <i>Asperigillus niger</i> ", <u>Biochem J.</u> , Vol. 96, pp. 651-658 (1965)
/L.B./		KURITA, K., "Controlled Functionalization of the Polysaccharide Chitin," <u>Prog. Polym. Sci.</u> , Vol. 26, pp. 1921-1971 (2001)
/L.B./		KURITA, K., et al., "Studies on Chitin, 3, Preparation of Pure Chitin, Poly (<i>N</i> -acetyl-D-glucosamine), from the Water-Soluble Chitin, <u>Makromol. Chem.</u> , Vol. 178, pp. 2595-2602 (1977)
/L.B./		KURITA, K., et al., "Studies on Chitin, 4, Evidence for Formation of Block and Random Copolymers of <i>N</i> -Acetyl-D-glucosamine and D-Glucosamine by Hetero- and Homogeneous Hydrolyses," <u>Makromol. Chem.</u> , Vol 178, pp. 3197-3202 (1977)
/L.B./		MIMA, S., et al., "Highly Deacetylated Chitosan and Its Properties," <u>Journal of Applied Polymer Sciences</u> , Vol. 28, pp. 1909-1917 (1983)
/L.B./		MAGHAMI, G., et al., "Evaluation of the Viscometric Constants for Chitosan," <u>Makromol. Chem.</u> , Vol. 189, pp. 195-200 (1988)
/L.B./		MUZZARELLI, R., et al., "Chelating, Film-Forming, and Coagulating Ability of the Chitosan-Glucan Complex from <i>Aspergillus niger</i> Industrial Wastes, <u>Biotechnology and Bioengineering</u> , Vol. 22, pp. 885-896 (1980)
/L.B./		NANJO, F., et al., "Enzymatic Method for Determination of the Degree of Deacetylation of Chitosan," <u>Analytical Biochemistry</u> , Vol. 193, pp. 164-167 (1991)

EXAMINER SIGNATURE: /Layla Bland/	DATE CONSIDERED: 09/18/2007
* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket Number	6682-77985-03
	Application Number	10/509,570
	Filing Date	September 29, 2004
	First Named Inventor	Trinkle et al.
	Art Unit	1609
	Examiner Name	Layla D. Bland

Examiner's Initials*	Cite No. (optional)	OTHER DOCUMENTS
/L.B./		NIOLA F., et al., "A Rapid Method for the Determination of the Degree of <i>N</i> -acetylation of chitin-chitosan samples by acid hydrolysis and HPLC," <u>Carbohydrate Research</u> , Vol. 238, p. 1-9 (1993)
/L.B./		NO, H., et al., "Preparation and Characterization of Chitin and Chitosan - A Review," <u>Journal of Aquatic Food Product Technology</u> , Vol. 4, No. 2, pp. 27-52 (1995)
/L.B./		NOVIKOV, V., et al., "Synthesis of D(+)-Glucosamine Hydrochloride," <u>Russian Journal of Applied Chemistry</u> , Vol. 70, No. 9, pp. 1467-1470 (1997)
/L.B./		OTTOY, M., et al. "Preparative and Analytical Size-exclusion Chromatography of Chitosans," <u>Carbohydrate Polymers</u> , Vol. 31, pp. 253-261 (1996)
/L.B./		PELLETIER, A., et al., "Chitin/Chitosan Transformation by Thermo-Mechano-Chemical Treatment Including Characterization by Enzymatic Depolymerization," <u>Biotechnology and Bioengineering</u> , Vol. 36, pp. 310-315 (1990)
/L.B./		REGE, P., et al., "Chitosan Processing: Influence of Process Parameters During Acidic and Alkaline Hydrolysis and Effect of the Processing Sequence on the Resultant Chitosan's Properties," <u>Carbohydrate Research</u> , Vol. 321, Nos. 3-4, pp. 235-245 (November 24, 1999)
/L.B./		ROBERTS, G., et al., "Determination of the Viscometric Constants for Chitosan," <u>Int. J. Biol. Macromol.</u> , Vol 4, pp. 374-377 (October 1982)
/L.B./		ROKEM J., et al., "Degradation of Fungal Cell Walls Taking into Consideration the Polysaccharide Composition," <u>Enzyme Microb. Technol.</u> , Vol. 8, No. 10, pp. 588-592 (October 1986) (Abstract)
/L.B./		RUIZ-HERRERA J., "Chemical Components of the Cell Wall of <i>Aspergillus</i> Species," <u>Archives of Biochemistry and Biophysics</u> , Vol. 122, pp. 118-125 (1967)
/L.B./		SABNIS, S., et al., "Improved Infrared Spectroscopic Method for the Analysis of <i>N</i> -deacetylation of Chitosan," <u>Polymer Bulletin</u> , Vol. 39, pp. 67-71 (1997)
/L.B./		SANNAN, T., et al., "Studies on Chitin, 2, Effect of Deacetylation on Solubility," <u>Makromol. Chem.</u> , Vol. 177, pp. 3589-3600 (1976)
/L.B./		SHAHIDI, F., et al., "Food Applications of Chitin and Chitosans," <u>Trends in Food Science & Technology</u> , Vol. 10, pp. 37-51 (1999)
/L.B./		STAGG, C., et al., "The Characterization of a Chitin-Associated D-Glucan from the Cell Walls of <i>Aspergillus Niger</i> ," <u>Biochim. Biophys. Acta</u> , Vol. 320, pp. 64-72 (1973)
/L.B./		STAINER, R., et al., "The Microbial World," <u>Prentice-Hall, Inc.</u> , pp. 332-336 (1970)
/L.B./		TAN, S., et al., "The Degree of Deacetylation of Chitosan: Advocating the First Derivate UV-spectrophotometry Method of Determination, <u>Talanta</u> , Vol. 45, pp. 713-719 (1998)
EXAMINER SIGNATURE: /Layla Bland/		DATE CONSIDERED: 09/18/2007
* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket Number	6682-77985-03
	Application Number	10/509,570
	Filing Date	September 29, 2004
	First Named Inventor	Trinkle
	Art Unit	1609
	Examiner Name	Layla D. Bland

U.S. PATENT DOCUMENTS

Copies of U.S. Patent documents do not need to be provided, unless requested by the Patent and Trademark Office. For patents, provide the patent number and the issue date. For published U.S. applications, provide the publication number and the publication date. For unpublished pending patent applications, provide the application number and the filing date.

Examiner's Initials*	Cite No. (optional)	Number	Publication Date	Name of Applicant or Patentee
/L.B./		US 2005-0245482 A1	11/3/2005	Fan et al.

FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee

Examiner's Initials*	Cite No. (optional)	OTHER DOCUMENTS

EXAMINER SIGNATURE: /Layla Bland/	DATE CONSIDERED: 09/18/2007
* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.	